



**Radian  
Communication Services  
Corporation**

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September 7, 2005

Iowa Department of Administrative Services  
GSE Purchasing  
Hoover State Office Building – Level A  
Des Moines, IA  
50319-0105

Attention: Mr Ashley Super

Re: Bid for KIIN-TV tower general maintenance  
West Branch, Iowa  
Bid # BD80600S370

Enclosed please find our bid for the KIIN tower maintenance project. Attached is our point by point response to the specifications, our bid sheets, and a background document outlining Radians experience and capabilities. The pricing proposal is sealed separately as requested. If you have any questions, please give me a call.

Sincerely,

John McKay, P.Eng. CBT.  
Manager, Broadcast Sales (USA)

Radian Communication Services Corporation  
Broadcast Division



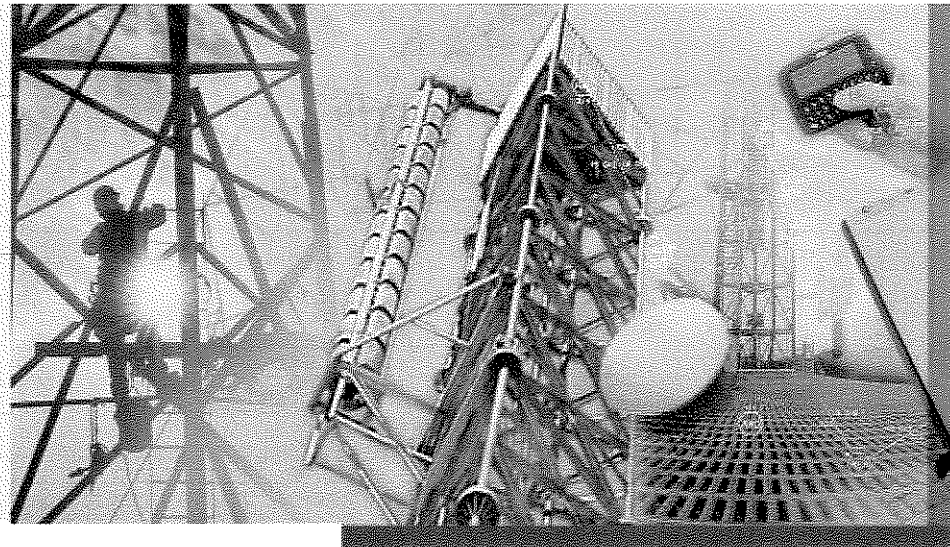
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NETWORK  
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OPERATIONAL  
EXCELLENCE



**IOWA PUBLIC TV**

**KIIN-TV GENERAL TOWER MAINTENANCE**

**BID # BD80600S370**

**SEPTEMBER 7, 2005**

**RADIAN FILE #: Q5-017-0118**

**PREPARED BY: JOHN MCKAY**

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PRICING PROPOSAL	SEALED SEPARATELY

## **EXECUTIVE SUMMARY FOR BID # BD80600S370**

Radian has reviewed the bid specifications including the tower structural analysis report provided by Iowa Public TV for the above bid. In addition, we have attended the site and viewed the condition of the existing tower. In order to expedite the project, it is our intent to try and have the painting subcontractor do the tower painting prior to commencement of the modifications. Given the long lead time of the guy wires and the anticipated 2 month timeframe to perform the reinforcing, it will likely be winter before the work is complete. If the painting is left until the end of the project, it likely will have to be completed in the spring. We have had our in-house installation engineer review the scope of work and for safety reasons we intend to use a frame while changing diagonals even though the engineering analysis suggests otherwise. Our proposal also does not require removal of the tower top section for antenna mount modifications, however our preliminary analysis of the structure for rigging loads suggests that the removal of the top antenna will be complex due to the heavy weight of the existing and proposed antennas. Normally we would cut the existing antenna into smaller, lighter segments for ease of removal. However, the specification calls for the existing antenna to be removed intact and this necessitates a detailed field procedure in order to accomplish a safe antenna removal. We have included a completely new Red LED lighting system, since code conformance, system operation, and alarm monitoring requirements can only be guaranteed by total system replacement although the specification suggests only the fixtures need to be replaced. Radian has successfully and safely performed many similar tower modification projects. This is a complex and potentially dangerous project. The owner should carefully consider experience, methodology, capability and engineering resources of the tower contractor, not just pricing and timeline, before making a decision to award.

I

## ATTACHMENT 1

### PROSPECTIVE VENDORS – SIGN AND SUBMIT CERTIFICATION WITH TECHNICAL PROPOSAL

#### PROPOSAL CERTIFICATION

I certify that I have the authority to bind the vendor indicated below to the specific terms, conditions and technical specifications required in the attached Request for Proposal BD80600S370 and offered in the vendor's proposal. I understand that by submitting this proposal, the vendor indicated below agrees to provide the services, which meet or exceed the requirements of the RFP unless noted in the proposal and at the prices quoted by the vendor.

I certify that the contents of the proposal are true and accurate and that the vendor has not knowingly made any false or misleading statements in the proposal.

John McKay      Sept 7, 2005  
Signature:      Date:

John McKay      Manager, Broadcast Sales  
Printed Name and Title

Radian Communication Services Inc.  
Name of Vendor Organization

## ATTACHMENT 2

### PROSPECTIVE VENDORS – SIGN AND SUBMIT CERTIFICATION WITH TECHNICAL PROPOSAL

#### CERTIFICATION OF INDEPENDENCE AND NO CONFLICT OF INTEREST

By submission of a proposal in response to RFP BD80600S370, the vendor certifies (and in the case of a joint proposal, each party thereto certifies) that the proposal has been developed independently, without consultation, communication or agreement with any employee or consultant of the Agency who has worked on the development of this RFP, or with any person serving as a member of the evaluation committee; the proposal has been developed independently, without consultation, communication or agreement with any other vendors or parties for the purpose of restricting competition; unless otherwise required by law, the information in the proposal has not been knowingly disclosed by the vendor and will not knowingly be disclosed prior to the award of the contract, directly or indirectly, to any other vendor; no attempt has been made or will be made by the vendor to induce any other vendor to submit or not to submit a proposal for the purpose of restricting competition; no relationship exists or will exist during the contract period between the vendor and the Agency that interferes with fair competition or is a conflict of interest.

J. McKay      Sept 7, 2005  
Signature:      Date:

John McKay      Manager, Broadcast Sales  
Printed Name and Title

Baelian  
Name of Vendor Organization

**ATTACHMENT 3**  
**PROSPECTIVE VENDORS – SIGN AND SUBMIT CERTIFICATION**  
**WITH TECHNICAL PROPOSAL**

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,**  
**INELIGIBILITY AND VOLUNTARY EXCLUSION—LOWER TIER COVERED**  
**TRANSACTIONS**

By signing and submitting this Proposal in response to RFPBD80600S370, the vendor is providing the certification set out below:

1. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the vendor knowingly rendered an erroneous certification, in addition to other remedies available to the federal government the Agency or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
2. The vendor shall provide immediate written notice to the person to which this Proposal is submitted if at any time the vendor learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
3. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principle, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this Proposal is submitted for assistance in obtaining a copy of those regulations.
4. The vendor agrees by submitting this Proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the Agency or agency with which this transaction originated.
5. The vendor further agrees by submitting this Proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion—Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

PAGE 1 of 2

6. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. A participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Non-procurement Programs.

7. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

8. Except for transactions authorized under paragraph 4 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the Agency or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

- (1) The vendor certifies, by submission of this Proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal Agency or agency.
- (2) Where the vendor is unable to certify to any of the statements in this certification, such vendor shall attach an explanation to this Proposal.

                    J. M.                      
Signature

                    Sept 7 / 2005                      
Date

                    John McKay                    Manager - Broadcast Sales                      
Printed Name and Title

                    Radian                      
Name of Vendor Organization



**ATTACHMENT 4**

**PROSPECTIVE VENDORS – SIGN AND SUBMIT CERTIFICATION WITH  
TECHNICAL PROPOSAL.**

**AUTHORIZATION TO RELEASE INFORMATION**

Radian Communication Services Inc. (Name of vendor) hereby authorizes any person or entity, public or private, having any information concerning the vendor's background, including but not limited to its performance history regarding its prior rendering of services similar to those detailed in RFP BD80600S370, to release such information to the Agency.

The vendor acknowledges that it may not agree with the information and opinions given by such person or entity in response to a reference request. The vendor acknowledges that the information and opinions given by such person or entity may hurt its chances to receive contract awards from the Agency or may otherwise hurt its reputation or operations.

The vendor is willing to take that risk. The vendor agrees to release all persons, entities, the Agency, and the State of Iowa from any liability whatsoever that may be incurred in releasing this information or using this information.

Radian Communication Services Inc  
Printed Name of Vendor Organization

John McKay Sept 7 2005  
Signature of Authorized Representative Date

John McKay Manager - Broadcast Sales  
Printed Name and Title

**ATTACHMENT 5:**

**PROSPECTIVE VENDORS – SIGN AND SUBMIT CERTIFICATION  
WITH TECHNICAL PROPOSAL**

**CERTIFICATION OF CONFIDENTIALITY  
AND NONDISCLOSURE AGREEMENT**

I John McKinley (Print Name)  
For Radian (Vendor)

acknowledge that in the performance of responsibilities under a contract my company may acquire or have access information regarding State of Iowa employees, clients and/or Iowa citizens and that such information is designated as “proprietary and confidential”.

I acknowledge that my company may be subject to significant Federal and State criminal and civil penalties if it misuses or improperly releases / discloses the confidential information it may acquire or have access to.

Therefore, my company agrees not to disclose or misuse such information except for purposes of performing under the contract. If there is doubt over confidentiality, we will regard it as confidential information. We further agree to adhere to any written procedures and policies with respect to the handling of confidential information.

I understand, acknowledge, and agree that this confidentiality and nondisclosure agreement remains in full force and effect after the conclusion, termination or expiration of the contract.

John McKinley (Signature) Date: Sept 7 / 2005



**Point-by-Point Response**

**to**

**Request for Proposal  
No. BD80600S370**

**General Tower Work at  
KIIN-TV Ch 12  
West Branch, Iowa**

Radian File: Q5-017-0118

September 7, 2005

## Section 1

- 1.1 Compliant
- 1.2 Compliant
- 1.3 Compliant
- 1.4 Compliant
- 1.5 Compliant
- 1.6 Compliant
- 1.7 Compliant
- 1.8 Compliant
- 1.9 Compliant
- 1.10 Compliant
- 1.11 Compliant
- 1.12 Compliant
- 1.13 Compliant
- 1.14 Compliant
- 1.15 Compliant
- 1.16 Compliant
- 1.17 Compliant
- 1.18 Compliant
- 1.19 Compliant
- 1.20 Compliant
- 1.21 Compliant
- 1.22 Compliant
- 1.23 Compliant
- 1.24 Compliant

## Section 2

2.0 Understood. Radian requires the final contract to be reviewed by our legal department and requests the ability to 'negotiate' the terms of the final contract before it will be signed.

- 2.1 Compliant
- 2.2 Compliant
- 2.3 Compliant
- 2.4 Compliant
- 2.5 Compliant
- 2.6 Compliant
- 2.7 Compliant
- 2.8 Compliant
- 2.9 Compliant

2.10 Compliant Note; Pricing in our proposal does not include any state sales and use taxes.

2.11 Compliant Note: Radians work and progress on the job shall not be

hampered by the actions of other contractors or trades working in or around the site. Radians project manager shall communicate the schedule with the IPTV project manager to avoid any conflict between contractors.

- 2.12 Compliant Note: some project meetings or updates may be held by teleconference.
- 2.13 Compliant
- 2.14 Compliant
- 2.15 Compliant repairs of the site shall be to the pre-existing condition prior to commencement of tower work.
- 2.16 Compliant

### **Section 3**

3.1 Understood

3.2

- 3.2.1 Compliant
- 3.2.2 Compliant Dampeners will be repositioned in accordance with manufacturers recommendations. We will consult with Alcoa on the high frequency dampener requirements for this tower. An optional line item price has been provided for complete replacement of all new dampeners.
- 3.2.3 Compliant Clarification: there are several recommendations in the reinforcing report that are unsafe. For example, it is Radians full intent to perform diagonal replacement with a safety frame. Also, preheating the welding may not be possible on the tower in the air depending on the ambient temperature.
- 3.2.4 Compliant Clarification: It is expected that the antenna provider will supply the antenna mounts. We have not included mounting brackets for the stand by antenna.
- 3.2.5 Compliant Clarification: the top section will not be removed in order to avoid complications with the elevator overhead machinery. It is anticipated that the top interface will be replaced in-situ and our pricing includes this.
- 3.2.6 Compliant Note: Removal of an old existing antenna often involves handling damage. Radian will attempt to remove the old antenna and line in the most professional manner however we cannot guarantee the performance of the antenna and line system if it is re-installed for reuse elsewhere in the future.
- 3.2.7 Compliant
- 3.2.8 Compliant No specifications were provided on this antenna. It is assumed to be a small wireless type panel antenna.
- 3.2.9 Compliant
- 3.2.10 Compliant Note: due to the timing of the project, the painting of the tower may not be accomplished until spring of 2006. At the time of bidding, Radian believes the project can be

completed prior to winter weather by painting the tower FIRST before the commencement of reinforcing work. However if weather conditions deteriorate such that painting is not practical or possible until after the modification work, then the painting portion of the project may have to be scheduled later on.

3.2.11 Compliant

3.2.12 Compliant

### 3.3

3.3.1 Compliant

3.3.2 Compliant Note: a drawing shall be provided but no now dampeners have been included in our proposal or cost. If the guy dampener manufacturer recommends additional qty or types of dampeners these shall be extra to the base bid price. An option price has been provided for complete replacement of all high frequency dampeners on all guy levels.

3.3.3 Compliant

3.3.4 Compliant

3.3.5 Compliant

3.3.6 Compliant

### 3.4

3.4.1 Compliant

3.4.2 Compliant

3.4.3 Compliant

### 3.5

3.5.1 Compliant

3.5.2 Compliant

3.5.3 Compliant

3.5.4 Compliant

3.5.5 Compliant

3.5.6 Compliant

3.5.7 Compliant

3.5.8 Compliant

3.5.9 Compliant

3.5.10 Compliant

3.5.11 Compliant Clarification: Radians price for this option is for labor only. It is expected that the antenna manufacturer will supply mounting brackets and pole for this antenna.

### 3.6

3.6.1 Compliant

3.6.2 Compliant

3.6.3 Compliant

3.6.4 Compliant

3.6.5 Compliant



- 3.6.6 Compliant
- 3.6.7 Compliant
- 3.6.8 Compliant
- 3.6.9 Compliant
- 3.6.10 Compliant
- 3.6.11 Compliant
- 3.6.12 Compliant
- 3.6.13 Compliant
- 3.6.14 Compliant
- 3.6.15 Compliant
- 3.6.16 Compliant
- 3.7
  - 3.7.1 Compliant Clarification: in order to guarantee a working system with the alarm monitoring requested, the existing wire and conduit will have to be replaced, not just the fixtures. Therefore our price is to provide a complete new RED LED lighting system including conduit and wire.
  - 3.7.2 Compliant
  - 3.7.3 Compliant Radian provides Honeywell Red LED lights.
- 3.8
  - 3.8.1 Compliant
  - 3.8.2 Compliant
    - 3.8.2.1 Compliant. The point by point response shall serve as our understanding of the services requested.
    - 3.8.2.2 Compliant
    - 3.8.2.3 Compliant. Please see the attached radian broadcast profile document for experience. Radian employs our own full time installation crews with some of the most senior foremen in the tower industry. Only the painting will be subcontracted. Radian plans to employ Shane Davis tower painters for this function. Crews report to one of four broadcast division project managers at our head office. Project managers with the assistance of our field coordinator plan and schedule all project activities from equipment and field personnel, to completion of engineering, detailing, fabrication and delivery of materials to the site. In addition to the foregoing, Radian's own full time installation engineer will be involved in the project and will prepare all calculations and procedures related to erection loads, member removals, and installation procedures for the tower modifications.
    - 3.8.2.4 See above
    - 3.8.2.5 We have prepared a project timeline/schedule for the

job. Depending on when the painting occurs (before or after the reinforcing) the project proper will take about 8 to 10 weeks. Guy wire lead time will dictate the start date and currently delivery of this size of guy wires is approximately 12-16 weeks. A site visit to verify dimensions and the initial engineering and detailing of all components will have to be performed prior to ordering the guys and this adds approximately 3 weeks at the beginning of the project for a total timeline of approximately 28 weeks not including painting time.

3.8.3 Compliant

3.8.4 Compliant

3.8.4.1 Radian Communication Services Inc. 461 Cornwall Rd Oakville Ontario Canada L6J-5C5. Tel: 905-339-4059. Fax: 905-844-8837. Contact: John Mckay

3.8.4.2 Corporation

3.8.4.2.1 Delaware

3.8.4.2.2 Eligible. Registration may not be current.

3.8.4.2.3 No.

3.8.4.3 Radian has multiple offices across Canada and the United States. Radian also operates engineering fabrication facilities in Ontario (broadcast) and in Illinois (wireless). The Cornwall Rd, Oakville Ontario Canada facility is the world wide corporate headquarters for both Canadian and US companies.

3.8.4.4 Compliant

3.8.4.5 No

3.8.4.6 No

3.8.4.7 No

3.8.4.8 No

3.8.5 See Radian Broadcast Profile document for detailed references and project listings.

3.8.6 Radian will self-perform all primary work related to the tower strengthening and antenna replacement including installation services. Radian intends to subcontract the tower painting to Shane Davis tower painters. Fencing will be provided by a local fencing contractor.

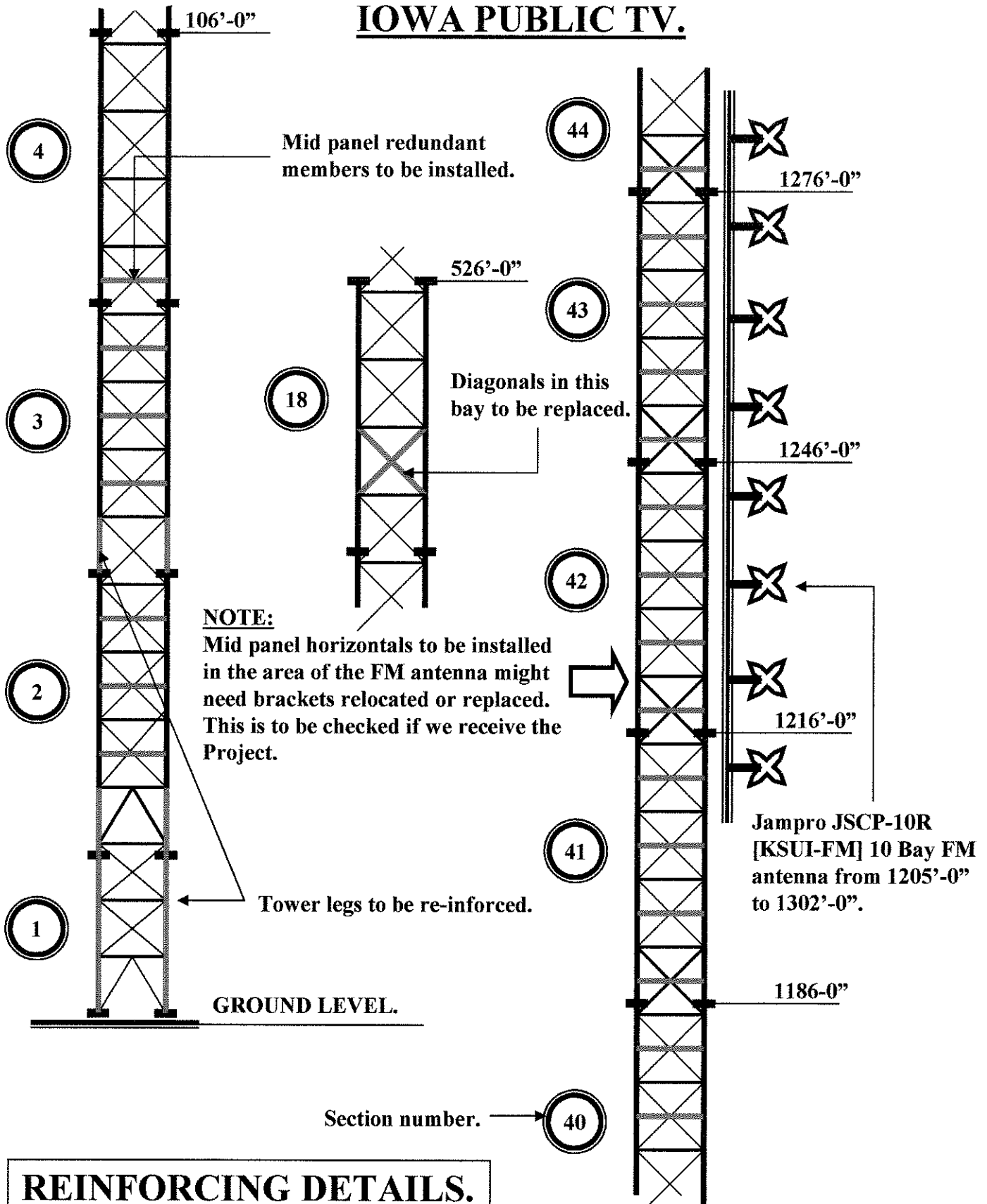




- 4      Section 4.**
- 4.1    Compliant
- 4.2    Compliant
- 4.3    Compliant

REVISION #0.

**Q05-17-0118.**  
**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

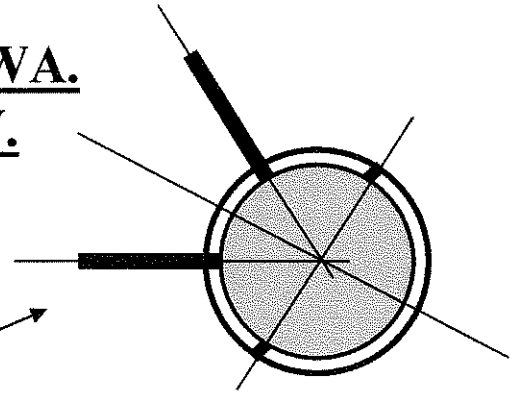


**REINFORCING DETAILS.**

5th September, 2006.

**Q05-17-0118.**  
**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

**REVISION #0.**



**LEG RE-INFORCING:**

We will assume for this tender the following;  
Five panels of legs are to be re-inforced.  
That means a total of thirty eight feet [38'-0"]  
The pipe is to be EES 6" dia. with a wall of .864".  
We will also assume that the pipe is to be installed  
on the outside of the leg as well as the inside.  
How this will be accomplished, can be decided when  
and if we receive the project.

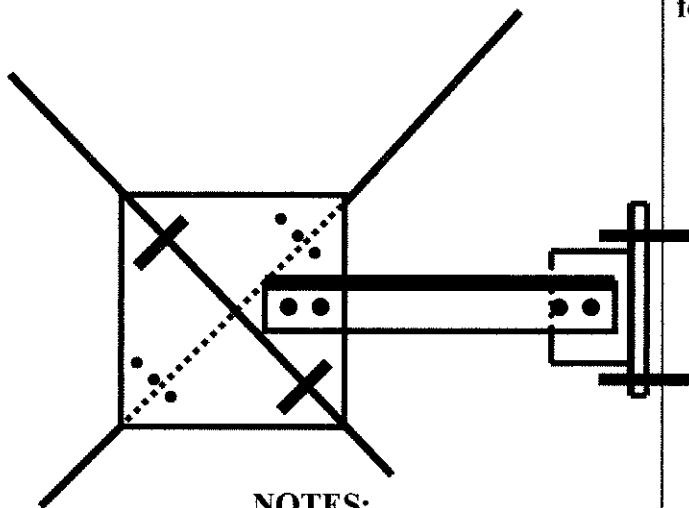
**DIAGONAL REPLACEMENTS:**

Again for bidding purposes we will assume the  
following; The customer has asked us to install one  
panel of diagonals from  $\frac{3}{4}$ " to  $\frac{7}{8}$ " diameter.  
They want us to use the same size of bolts.  
They have also mentioned that we will not need  
any framing at all. This we will ignore.

**LEG RE-INFORCING.**

**[REDUNDANT MID PANEL HORIZONTALS]**

There are to be twenty two [22] panels with the  
redundant horizontals. The members are to be  
 $2\frac{1}{2}$ " x  $2\frac{1}{2}$ " x  $\frac{3}{8}$ " b/b angles with [2]  $\frac{5}{8}$ "  
Diameter bolts each end. SEE DETAIL.



**NOTES:**

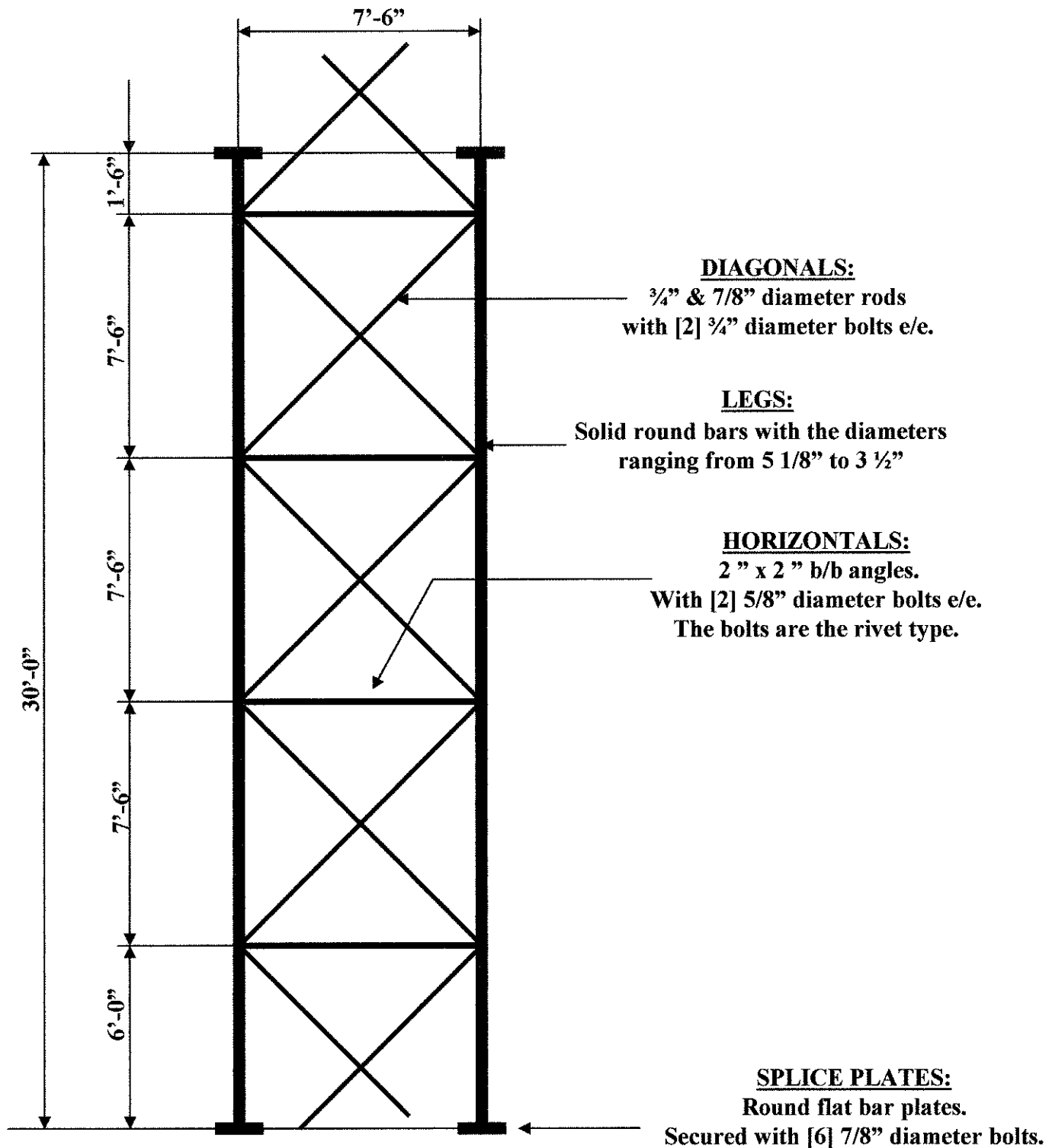
Plate at centre to have the diagonals  
U-bolted to it. The bracket at the leg  
is to consist of channel with gusset  
plates welded to it and then U-bolted  
to the tower leg.

**RE INFORCING DETAILS.**

2nd September, 2005.

**Q05-17-0118.**  
**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

**REVISION #0.**

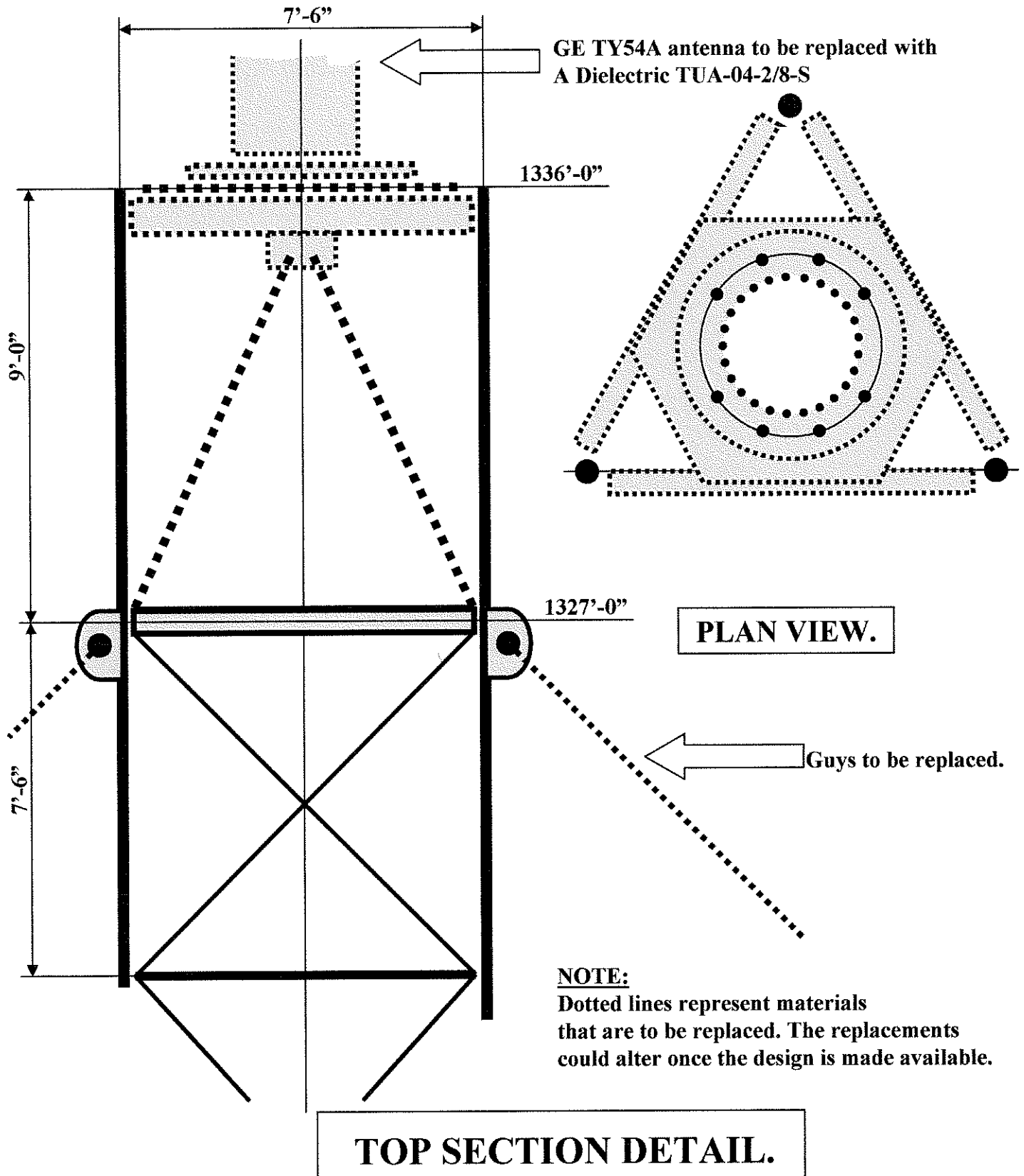


**STANDARD SECTION.**

2nd September, 2005.

**Q05-17-0118.**  
**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

REVISION #0.

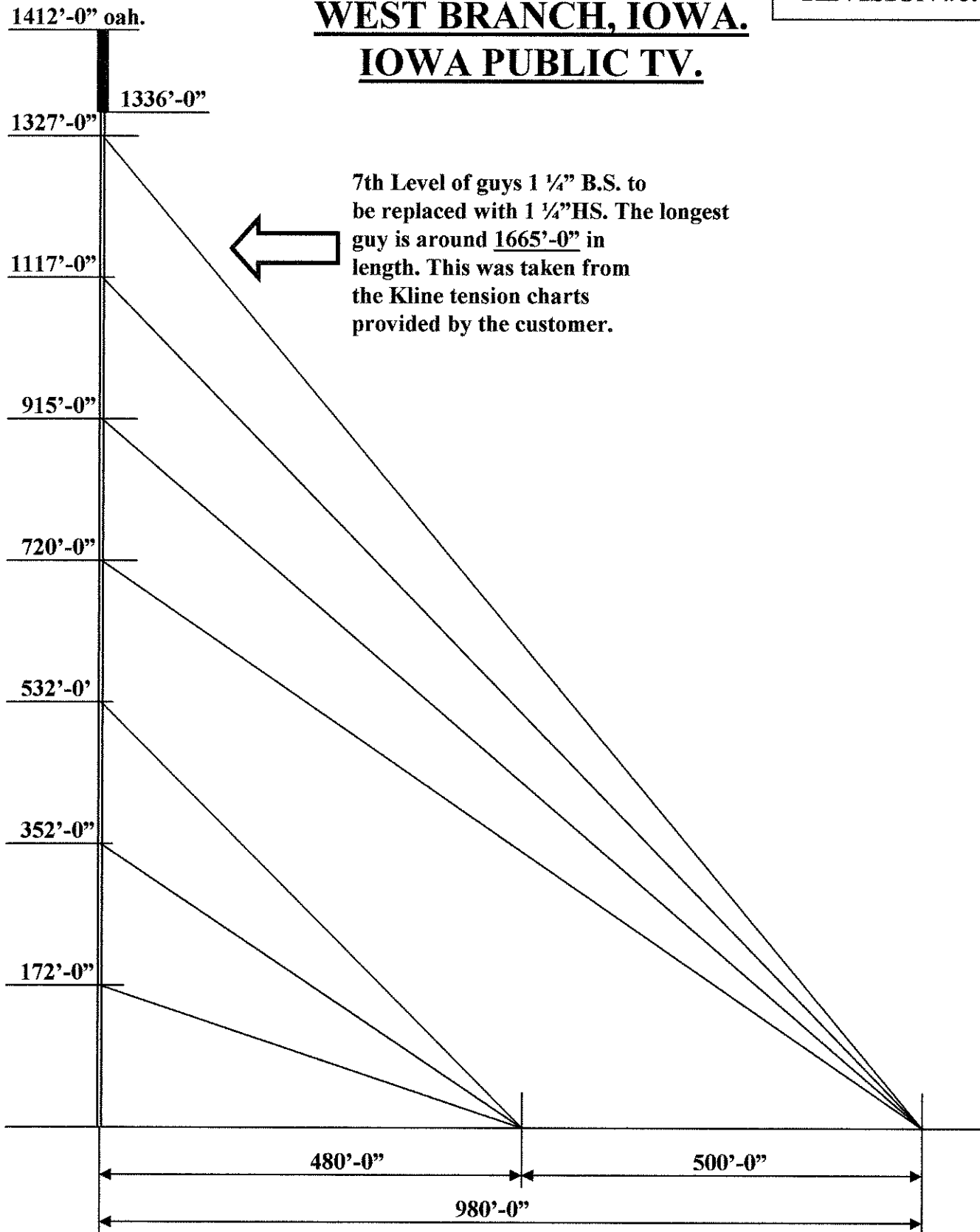


5th September, 2006.

**Q05-17-0118.**

**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

**REVISION #0.**



**TOWER ELEVATION.**

2nd September, 2006.

**Q05-17-0118.**

**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

**REVISION #0.**

1412'-0" oah.

1336'-0"

1327'-0"

1117'-0"

915'-0"

720'-0"

532'-0'

352'-0"

172'-0"

10'-0" clearance.

36.3 degrees.

13.6'

"A"

**OUTER ANCHOR.**

$$\begin{aligned}\text{Tan/angle } [36.3] &= \frac{10}{\text{"A"}} \\ .73457 &= \frac{10}{\text{"A"}} \\ \text{"A"} &= \frac{10}{.73457} \\ &= 13.6\end{aligned}$$

10'-0" clearance.

19.8 degrees.

27.8'

"A"

**INNER ANCHOR.**

**INNER ANCHOR.**

$$\begin{aligned}\text{Tan/angle} &= \frac{172}{480} \\ &= .35833333 \\ &= 19.8 \text{ degrees.}\end{aligned}$$

**OUTER ANCHOR.**

$$\begin{aligned}\text{Tan/angle} &= \frac{720}{980} \\ &= .734694 \\ &= 36.3 \text{ degrees.}\end{aligned}$$

$$\begin{aligned}\text{Tan/angle } [19.8] &= \frac{10}{\text{"A"}} \\ .36000 &= \frac{10}{\text{"A"}} \\ \text{"A"} &= \frac{10}{.360} \\ &= 27.8\end{aligned}$$

19.8 degrees.

480'-0"

36.3 degrees.

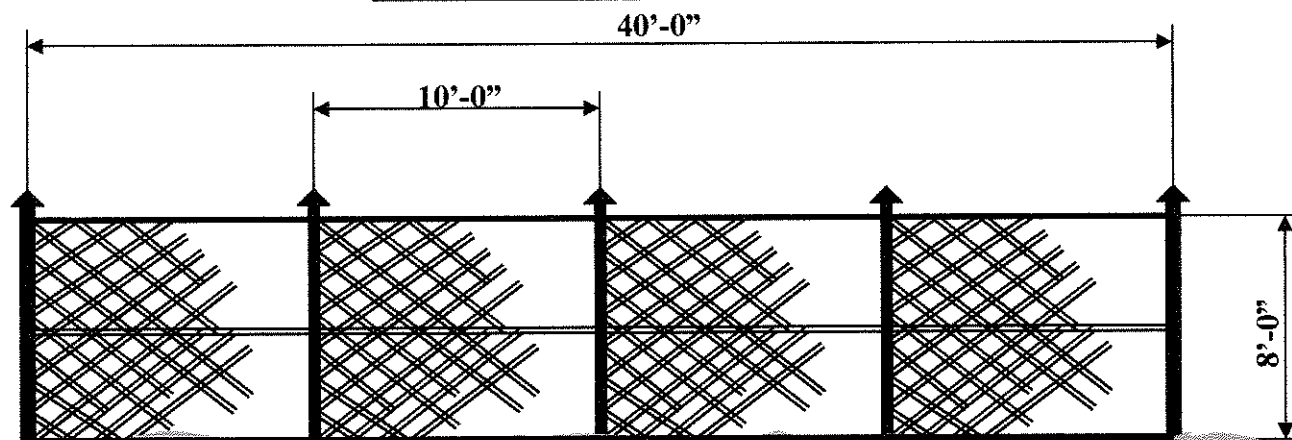
500'-0"

980'-0"

**FENCING DETAILS.**

**Q05-17-0118.**  
**WEST BRANCH, IOWA.**  
**IOWA PUBLIC TV.**

REVISION #0.

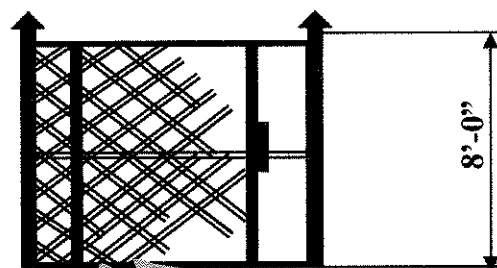


**OUTER ANCHOR.**

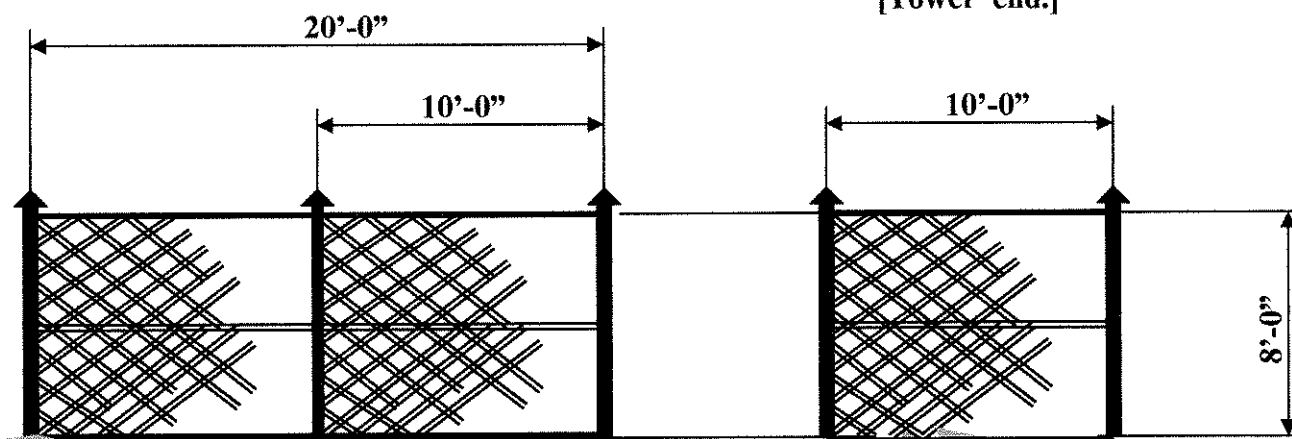
[Sides.]

**NOTES:**

Fence to be 8'-0" tall, nine gauge galvanized wire security fence. There is to be an 8'-0" gate at the tower end. Post spacing is to be 10'-0" with all posts to have caps.



[Tower end.]



[Back end.]

**INNER ANCHOR.**

[Sides.]

**FENCING DETAILS.**





## **Radian Communication Services Corporation**

Radian Communication Services Corporation (Radian) was formed through the joining of LeBLANC Ltd. and BMS Communication Services in February 2001. LeBLANC, established in 1962, grew to become the worlds largest organization engaged in the design, manufacture and installation of towers and masts for telecommunications and broadcast applications. Operating as Radian Communication Services Inc. in the U.S. we specialize in a full range of guyed masts from 10 inches to 16-foot faces, and heights over 2000 feet, as well as self-support towers up to 1000 feet.

Radian provides complete turnkey engineering, manufacturing, and construction services, or any combination of individual services related to the construction and continuing operation of communication and broadcast towers and masts. These services include the installation and performance testing of all types of antenna systems.

Radian is committed to providing quality products and services that meet or exceed the specifications and expectations agreed upon with our customers, 100% of the time by conforming to documented Quality Standards. This commitment includes the design, manufacture, delivery, installation, and all project management and sales interactions with our customers from inquiry through to final customer acceptance and continuing to include on-going service and maintenance issues.

### ***FACILITIES***

Our state of the art facilities are located in Oakville, Ontario where we operate our existing 100,000 square foot tower fabrication plant on a 10-acre site. In 2001 we completed an expansion of these facilities by over 30,000 square feet in an effort to better serve our client base with as effectively and efficiently as possible. Field services are delivered through a network of branch offices that are strategically located across North America. In North America we have over 500 employees in administration, sales, project management, engineering, drafting, manufacturing and field operations. In 2004 we completed the acquisition of the assets of Rohn Industries, adding the Rohn tower engineering and manufacturing facility in Peoria Illinois to our portfolio.

### ***ENGINEERING***

Our Engineering staff, comprising of more than 20 Engineering Professionals located in Oakville, Ontario, has designed and detailed many of North America's more substantial



antenna support structures. Radian routinely designs, fabricates and erects tall broadcast towers reaching heights of more than 2000'. Our design effort is concentrated in three main areas. Custom designing towers to specific customer requirements, designing standard tower components and the analysis and modification of existing structures to suit changed antenna loading and revised standards. We use our own proprietary in-house computer software for generating new designs and undertaking the analysis of existing towers.

A proprietary 3D CAD system is utilized in the detailing of these structures. All of our designs meet current ANSI/EIA structural and environmental standards and our designs can be easily adapted to include any local or International specifications.

### ***MANUFACTURING***

Radian's CWB certified manufacturing facilities are equipped with the latest state-of-the-art equipment for the fabrication of a broad range of communications structures. Shears, burning machines, saws, hydraulic punches and markers, ironworkers, drills, lathes, and semi-automatic welders are all employed in a variety of tasks. The facility is also certified to AISC Category II (Complex Steel Structures) and to ISO 9001 quality standards. No other tower company in North American can claim this level of certification.

A computer-numeric-controlled (CNC) angle-processing machine is used for the automatic punching, marking, shearing and sorting of angles. In addition, a CNC plate duplicator is used.

A special custom designed roll forming angle machine is used to reform ninety-degree angles to sixty degrees for angle tower legs in triangular towers. Sizes up to 8" x 8" x 3/4" angles can be processed by this machine. The gas metal arc welding (GMAW) process is certified to CWB (Canadian Welding Bureau) standards, which meet or exceed AWS (American Welding Standards) guidelines. Solid Round bar sizes up to 10" diameter are handled and welded regularly for tall tower leg members in our facility.

After fabrication, all material is hot-dipped galvanized for maximum environmental protection. When specified for aircraft recognition, the tower sections can be factory painted to the required colours and pattern. Radian has a special blast room to "brush-blast" clean the galvanized material in preparation for painting. This method ensures maximum adhesion for durability and long life. While our standard is a latex paint



system other systems can be provided if required.

The final products are sorted, counted, bundled, crated and packed as required to ensure safe delivery to the site. We have the capacity to ship more than 20 million pounds of fabricated steel tower components annually from our Oakville facility.

### ***PURCHASED MATERIALS***

A complete communications structure requires many components. Radian purchases those items that it does not manufacture from reliable suppliers and distributors who must meet or exceed Radian Quality System requirements. Some of these many items include; fasteners, guy cables, guy hardware, obstruction lighting components, grounding materials, antennas, transmission lines and accessories.

### ***FIELD SERVICES***

Radian maintains a large Field Operations Department. Crews are comprised of our own full time riggers, and are strategically based in major market areas across North America. This Department provides the following range of services:

- Tower construction
- Tower modifications & strengthening
- Foundations for towers and buildings
- Installation of antennas and transmission lines
- Mechanical and electrical inspections, and maintenance
- Access roads
- Site clearing
- Site levelling, grading and fencing
- Building construction

Our Field Operations Department is one of the largest organizations of its kind in the world, specializing in the installation and maintenance of communications towers and antenna systems. Crews are provided with the latest installation equipment, much of it designed and manufactured in our plants. The current safe lifting capability is up to 40,000 pounds in a single lift. Added in 1999, we have our own custom designed tower top crane for building large broadcast candelabra antenna mounts. This crane can lift



22,000 lbs at 45' out and easily has the capacity and reach to build a 75' spread candelabra.

### ***RF BROADCAST SERVICES***

The RF Broadcast Services department provides installation, commissioning, inspection and maintenance services for TV, FM, AM and HF broadcasters. Our RF field specialists are equipped with the latest test equipment for carrying out broadcast system measurements including antennas, transmitters and ancillary equipment. Radian has installed and commissioned VHF, UHF and FM transmitter plants from exciter power to 60 Kw for North American and offshore clients. We have full antenna commissioning and repair capabilities in house. Radian maintains 5 North American test equipment depot locations for efficient deployment to broadcast emergencies.

### ***FINANCIAL PROFILE***

Radian is dedicated to steady growth and sound financial management. Since 1962 our annual sales have grown rapidly to more than 120 million dollars. This has proven to be of benefit to both our customers and ourselves in all the projects we have undertaken in the areas of banking, bonding and insurance. Radian has complete insurance coverage from both American Home Assurance Co. and Chubb Insurance Company of Canada. We currently hold primary and umbrella liability insurance, which more than adequately covers our projects throughout North America and worldwide. Additional policies are also in effect for installation, equipment, transportation and vehicle loss or damage.

### ***QUALITY ASSURANCE***

For more than 40 years we have established a reputation for superior design, quality materials, excellent workmanship and total reliability. These qualities have enabled us to grow steadily into one of the worlds leading suppliers of communications towers and masts, and related equipment, with installations in virtually every corner in the world.

The company blends the traditional qualities of pride in workmanship with modern technology in such areas as CAD and other computerized support functions to provide our customers with systems that combine functional excellence with maximum operational efficiency.



Quality products and services are one of the prime objectives of Radian. To ensure the quality of manufactured products, our Quality Program conforms to the requirements of ISO 9001. In addition to ISO certification, our manufacturing facility is certified to AISC Category II (Complex Steel Structures). These programs cover all aspects of engineering and manufacturing including document control, purchasing, incoming, in-process and final inspections, traceability, and quality records. Quality is every employee's responsibility.

#### ***POLICY STATEMENT - SAFETY***

It is the policy of the company to conduct the operations in the plant and in the field with the utmost safety. The company work instructions and practices are in strict compliance with state and federal OSHA regulations and employees are supplied with all required safety devices and trained in their use in order to maximize workers personal safety.



### ***SOME OF OUR PAST PROJECTS:***

#### **Monroe, LA**

An elevator equipped 1999' overall height guyed LRM3000 series broadcast tower for the CBS affiliate KNOE-TV in Monroe, Louisiana. The tower was built to accommodate a top mounted 136' Dielectric antenna, two 10 bay RFS UHF antennas and an ADC 6bay antenna, all fed with 6-1/8" coaxial lines. Additional loading calls for a Shively 16 bay FM antenna as well as two microwave dishes. Completed in 1998. Jerry Harkins, Chief Engineer 318-388-0070

#### **Fayetteville, AR**

This complex project, involved collapsing an existing 500' structure, building a 200' temporary self-support tower and culminated in the erection of a 500' guyed LRM2000 series broadcast tower. The customer was KHOG-TV in Fayetteville, Arkansas. The tower was built to accommodate a top mounted 38' RFS, UHF antenna, fed with two 6-1/8' coaxial lines and three microwave dishes. Completed in 1997. Martin Fauble, Director of Engineering Hearst Argyle Group, 212-887-6800

#### **Hudson, MA**

Radian designed, fabricated and installed a 1249' broadcast tower for WSHH-TV in Hudson, MA. The contract also included the dismantling of the existing 1249' broadcast tower on the site. The new tower will initially be supporting a Dielectric TFU-34JTH-R NTSC channel 66 antenna fed by DTW 1350A waveguide and a Dielectric TFU-10DSC-R C179 digital channel 23 antenna fed by 6 1/8' transmission line. Completed in 1998. Mark Arpino, Chief Engineer, 978-562-0660



### **Detroit, MI**

Radian designed, fabricated and installed a 1087' OAH broadcast tower for CBS owned and operated station WWJ. This is a 12' face tightly guyed tower with a 50' candelabra designed to support multiple TV and FM antennas as well as a host of communications antennas and two radio equipment platforms. Completed in 1999. John Byrne, Director of Engineer, CBS, 212-975-7015

### **Portland, OR**

This 1000' guyed tower for Sylvan Tower LLC was designed, fabricated and installed by Radian and was a joint venture of KGW and Oregon Public Broadcasting. The tower is equipped with a top mounted 50' spread Candelabra to permit multiple broadcast antennas. Completed in 1999. Eric Dausman, Director of Broadcast Ops, 503-226-5004

### **Portland, OR**

Radian designed, fabricated and installed this 1000' guyed tower for Skyline Tower LLC, a joint venture of several broadcasters headed by KOIN-TV. The tower is equipped with a top mounted 50' spread Candelabra to permit multiple broadcast antennas. This extremely difficult site involved working in close proximity to several other towers, including an operational AM broadcast array which necessitated the use of large guy wire insulators and a tower face mounted detuning "skirt". Radian was also responsible for the design and construction supervision of a multi tenant transmitter building to service the broadcasters on this new tower. Completed in 1999. Lee Wood, Director of Engineer, 503-464-0664

### **Missouri City, TX**

A 12' face width 1972' overall height guyed tower was designed, fabricated and installed by Radian for Richland near Houston, Texas. The tower is equipped with a top mounted 75' spread candelabra for supporting multiple broadcast antennas. The tower also has several large wrap around platforms for supporting wireless communications equipment. Completed in 2000. Tony Flores, Richland Towers, 813-286-4140



### **Orlando, FL**

Radian designed, fabricated and installed this 12' face width 1682' overall height guyed tower for Richland. The tower is equipped with a top mounted 75' spread candelabra for supporting multiple broadcast antennas. The tower also has several large wrap around platforms for supporting wireless communications equipment. Completed in 2001. Tony Flores, Richland Towers, 813-286-4140

### **Atlanta, GA**

This 12' face width 1180' overall height guyed tower was designed, fabricated and installed for Richland by Radian. The tower is equipped with a top mounted candelabra for supporting multiple broadcast antennas. The tower also has several large wrap around platforms for supporting wireless communications equipment and is tightly guyed at only 35% due to the compact property. Completed in 2001. Tony Flores, Richland Towers, 813-286-4140

### **Brownsville, TX**

Radian designed, fabricated and installed this 10' face width 1490' overall height guyed tower for Pinnacle Towers. The tower is equipped with a top mounted candelabra for supporting multiple broadcast antennas. The tower also has several large wrap around platforms for supporting wireless communications equipment. The project also involved dismantling the existing tall guyed tower located beside the new structure. Completed in 2001. Mike Millard, VP Engineering, 941-364-8886





### **Grand Rapids, MI**

Radian designed, fabricated and installed this new 1000' guyed tower for WZZM-TV. Completed in 2002. Contact Chuck Mikowski (616) 785-1313

### **Tulsa, OK**

Radian designed, fabricated and installed a new 1000' guyed tower for public station KTWU. Included installation of both Dielectric and Andrew antenna systems. Completed in 2001. Contact Duanne Loyd, tel: 785-231-1111.

### **Indianapolis, IN**

Radian removed an existing batwing antenna at WRTV and installed a new broadband UHF antenna. The existing transmission line that had to be adapted and extended utilized Marmon flanges. Contact Ron Eden, Director of Engineering, McGraw Hill Broadcast.

### **Saginaw, MI**

Radian fabricated and installed reinforcing modifications for Delta College on an existing guyed tower. Completed in 2003. Contact Tom Garnet, tel: 989-686-9357

### **Saginaw, MI**

Radian fabricated and installed reinforcing components for WNEM on their existing guyed tower. The project included refurbishing tx line inners, w/g rollers and installation of a DTV antenna. Contact Greg Surma, tel: 989-785-2084

### **Albany, NY**

Radian designed, fabricated and installed this new 500' multi station guyed tower for the Capital Region Broadcasters. Completed in 2002. Contact Fred Lass WRGB, 518-346-6666

### **Austin, TX**

Radian constructed a 1000' guyed candelabra multi-station heavy duty broadcast



tower at Austin, Texas for CBS and BELO Corp stations KEYE and KVUE as well as public broadcaster KLRU. This heavy capacity broadcast tower features a candelabra for three full size broadcast antennas as well as a complex waveguide bridge system providing transmission line access to the tower from the three individual transmitter buildings. Completed in 2003. Contact Wayne Kube at Belo Corp.

#### **Grand Rapids, MI**

Radian refurbished tx line inners and performed DTV antenna installation at WXMI. Completed in 2002. Contact Dale Scholton, tel: 616-364-8722

#### **Delco, NC**

Radian engineered, fabricated and erected this 1000' guyed tower for the University of North Carolina UNC-TV public network. The tower is designed to support both analogue and dtv antenna systems. Completed in 2003. Contact Wayne Estabrooks 919-549-7265

#### **New Orleans, LA**

Radian originally designed this 1200' T bar tower and built it in the mid 1980's. In 2003, the antenna loading was changed substantially by the owner, which necessitated the removal and replacement of the top central FM spire, and the removal and complete replacement of one of the two t bar arms. New antennas were then installed on the rebuilt arm. Contact Spectrasite Broadcast Group, Brian Becker 919-466-4832.

#### **Five Sites, Arkansas**

Radian performed tower reinforcing including guy wire changeouts on all five sites owned by Arkansas Educational Television Network utilising multiple crews in parallel in order to fast track the project to completion. Contact Gary Schults, AETN, 501-682-4187



**Current New Tower Construction Projects Under Way:**

- 730' guyed tower for Denver DTV consortium on Lookout Mtn, Colorado
- 1200' guyed tower for FOX Television WGHP in High Point, NC
- 1300' guyed tower for Hearst Argyle in Omaha, NE just completed
- Various DTV antenna installation projects are in progress across the USA.  
Contact John McKay, Manager – Broadcast Sales (905) 339-4059 for a current list.

**Other References:**

- John Byrne, Director of Project Engineering, CBS Television Stations, New York, 212-975-7015.
- Wayne Kube, Director of Engineering, BELO, Dallas, 1 (214) 977-6261
- Tony Flores, Richland Towers, Tampa 813-286-4140

## Request for Taxpayer Identification Number and Certification

Give form to the  
requester. Do not  
send to the IRS.

Print or type  
See Specific instructions on page 2.

Name <b>RADIAN COMMUNICATION SERVICES INC.</b>	
Business name, if different from above <b>AS ABOVE</b>	
Check appropriate box: <input type="checkbox"/> Individual/ Sole proprietor <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Other ▶	<input type="checkbox"/> Exempt from backup withholding
Address (number, street, and apt. or suite no.) <b>461 CORNWALL ROAD</b>	
City, state, and ZIP code <b>OAKVILLE, ONTARIO L6J 5C5, CANADA</b>	
List account number(s) here (optional)	

### Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see **How to get a TIN** on page 3.

**Note:** If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number								
or								
Employer identification number								
5	1	0	2	7	3	9	1	2

### Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. person (including a U.S. resident alien).

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 4.)

Sign  
Here

Signature of  
U.S. person ▶

Date ▶

### Purpose of Form

A person who is required to file an information return with the IRS, must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

**U.S. person.** Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- Certify that you are not subject to backup withholding, or
- Claim exemption from backup withholding if you are a U.S. exempt payee.

**Note:** If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

**Foreign person.** If you are a foreign person, use the appropriate Form W-8 (see **Pub. 515, Withholding of Tax on Nonresident Aliens and Foreign Entities**).

### Nonresident alien who becomes a resident alien.

Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the recipient has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement that specifies the following five items:

- The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
- The treaty article addressing the income.
- The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
- The type and amount of income that qualifies for the exemption from tax.
- Sufficient facts to justify the exemption from tax under the terms of the treaty article.